

**Special Status Plant and Animal Species Table
and USFWS and NMFS Correspondence**

Table D-1. Special-Status Plant and Animal Species that Occur or Have Potential to Occur in or near the Proposed Wetland Restoration Site

Common and Scientific Name	Legal Status ^a Federal/State /CNPS	Habitat Requirements	Distribution in California	Occurrence in the Project Area
Plants				
California suaeda (<i>Suaeda californica</i>)	E/--/1B	Margins of coastal salt marsh	Extirpated from San Francisco Bay area; known only from Morro Bay	None observed during rare plant surveys
Fragrant fritillary (<i>Fritilaria liliacea</i>)	--/--/1B	Coastal prairie, coastal scrub, valley and foothill grassland; often on serpentinite	Central coastal counties	Habitat at HAAF and the project area not likely to be suitable; none observed during rare plant surveys
Marin dwarf-flax (<i>Hesperolinon congestum</i>)	T/T/1B	Serpentine soils in grassland or chaparral habitats	San Francisco Bay area	No suitable habitat at HAAF and study area; none seen during field surveys
Marin knotweed (<i>Polygonum marinense</i>)	--/--/3	Coastal salt marsh	Marin, Napa, and Sonoma Counties	None observed during rare plant surveys
Mason's quillwort (<i>Liliaeopsis masonii</i>)	--/R/1B	Brackish and freshwater marshes and swamps, riparian scrub	San Francisco Bay and Delta areas	No suitable habitat in the project area; none observed during rare plant field surveys
Mount Tamalpais jewelflower (<i>Strepanthus glandulosus</i> ssp. <i>pulchellus</i>)	--/--1B	Chaparral and grasslands with serpentine soils	Marin County	No suitable habitat; none observed during rare plant field surveys
Petaluma popcornflower (<i>Plagiobothrys mollis</i> var. <i>vetitus</i>)	--/--/1A	Habitat requirements uncertain; possibly salt marsh or mesic grasslands	Known only from type specimen in 1988 near Petaluma	None observed during rare plant surveys
Point Reyes bird's-beak (<i>Cordylanthus maritimus</i> ssp. <i>palustris</i>)	--/--1B	Salt marshes	Northern California coastal counties	None observed during rare plant field surveys
Round-headed beaked-rush (<i>Rhynchospora globularis</i>)	--/--/2	Freshwater marsh	Sonoma County	None observed during field surveys

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Soft bird's-beak (<i>Cordylanthus mollis</i> ssp. <i>mollis</i>)	E/R/1B	Upper marsh elevations that are regularly inundated but above area receiving daily flooding	San Francisco Bay area counties	None observed during field surveys
Sonoma alopecurus (<i>Alopecurus aequalis</i> var. <i>sonomensis</i>)	E/--/1B	Wet meadows, freshwater marsh, and riparian scrub	Marin and Sonoma Counties	Habitat unlikely to occur in the project area; none observed during rare plant field surveys at HAAF
Suisun thistle (<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>)	E/--/1B	Brackish tidal marsh and salt marsh	Solano County	None observed during rare plant field surveys at HAAF
Swamp harebell (<i>Campanula californica</i>)	--/--/1B	Freshwater marsh, bogs, and mesic sites in conifer forests and grasslands	Central and northern counties of California	Habitat unlikely to occur in the project area; none observed during rare plant field surveys at HAAF
Thurber's reed grass (<i>Calamagrostis crassiglumis</i>)	--/--1B	Freshwater and mesic sites in coastal prairie	Northern California counties	None observed during rare plant field surveys at HAAF
Invertebrates				
California freshwater shrimp (<i>Syncaris pacifica</i>)	E/E/--	Occurs in coastal streams	Coastal northern California	No records; no suitable stream habitat
Ricksecker's water scavenger beetle (<i>Hydrochara rickseckeri</i>)	SC/--/--	Occurs in streams	San Francisco Bay area	No records; nearest record is at Bolinas; no suitable habitat at project site
San Francisco fortail damselfly (<i>Ischnura gemina</i>)	SC/--/--	Occurs in slow-moving streams and channels	San Francisco Bay area	No records; drainage channel near HAAF is considered marginal-quality habitat
Marin elfin butterfly (<i>Incisalia mossii</i>)	SC/--/--	Occurs in Marin County where Pacific stonecrop occurs	Marin County	No records; Pacific stonecrop was not found in the project area; no suitable habitat is present

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Fish				
Tidewater goby (<i>Eucyclogobius newberryi</i>)	E/SSC/--	Shallow lagoons and lower reaches of streams	Coastal California	Observed at mouth of Novato Creek in 1945, although not assumed to be present any longer; tidal marshes in the project area and channel at project site are considered marginal-quality habitat
Sacramento splittail (<i>Pogonichthys macrolepidotus</i>)	PT/SSC/--	Generally restricted to tidal freshwater and low-salinity habitats	Generally upstream of San Pablo Bay	No records; no suitable habitat in the project area
Longfin smelt (<i>Spirinchus thaleichthys</i>)	SC/SSC/--	Spawns in lower Sacramento-San Joaquin River and Suisun Bay; prespawning adults and juveniles inhabit shoal areas of San Pablo Bay	Lower Sacramento-San Joaquin River, Suisun Bay, and San Pablo Bay	Could occur in or near the tidal marsh at and adjacent to HAAF
Central Valley Steelhead (<i>Oncorhynchus mykiss</i>)	T/SSC/--	Spawns in fresh water; juveniles rear in fresh and estuarine water before migrating to the ocean	Central Valley rivers and streams	Juveniles migrating to the ocean may use these areas to rear. Steelhead known in Novato Creek.
Chinook Salmon: winter-run, spring-run, fall and late fall-run (<i>Oncorhynchus tshawytscha</i>)	E/E/-- PE/C/-- PT/SSC/--	Spawns in fresh water; juveniles rear in fresh and estuarine water before migrating to the ocean	Central Valley rivers and streams	Juveniles migrating to the ocean may use these areas to rear; San Pablo Bay is within the critical habitat defined for winter-run chinook salmon. Chinook known to spawn in upper Arroyo San Jose.

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Amphibians				
California tiger salamander (<i>Ambystoma californiense</i>)	C/SSC/--	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy; does not occur in brackish water or saltwater habitats	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to Santa Barbara County	No records; no suitable freshwater habitat; not expected to occur in the project area
California red-legged frog (<i>Rana aurora draytonii</i>)	T/SSC/--	Permanent and semipermanent aquatic habitats, such as creeks and coldwater ponds, with emergent and submergent vegetation and riparian species along the edges; may estivate in rodent burrows or cracks during dry periods	Found along the coast and coastal mountain ranges of California from Shasta County to San Diego County; Sierra Nevada from Butte County to Fresno County	No records from surveys conducted in the HAAF or BMKV (Environmental Science Associates 1993) area; no suitable freshwater habitat; not expected to occur in the project area
Foothill yellow-legged frog (<i>Rana boylei</i>)	SC/SCC/--	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge; usually found near riffles with rocks and sunny banks nearby	Occurs in the Klamath, Cascade, north Coast, south Coast, and Transverse Ranges; through the Sierra Nevada foothills up to approximately 6,000 feet (1,800 meters) south to Kern County	No records; no suitable habitat
Western spadefoot toad (<i>Scaphiopus hammondi</i>)	SC/SCC/--	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	No records; no suitable freshwater habitat; not expected to occur in the project area

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Reptiles				
Northwestern pond turtle (<i>Clemmys marmorata marmorata</i>)	SC/SCC/--	Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation	In California, range extends from Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through Sacramento Valley, and on the western slope of Sierra Nevada; range overlaps with that of southwestern pond turtle through the Delta and Central Valley to Tulare County	Have been documented in or near Pacheco Pond.
Southwestern pond turtle (<i>Clemmys marmorata pallida</i>)	SC/SCC/--	Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation	Occurs along the central coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonora Deserts; range overlaps with that of the northwestern pond turtle throughout the Delta and in the Central Valley from Sacramento County to Tulare County	No records; could occur in Pacheco Pond, but none were seen during field surveys
California horned lizard (<i>Phrynosoma coronatum frontale</i>)	SC/SSC/--	Grasslands, woodlands, and shrublands	Northern California, north of Los Angeles County	No records; potential low-quality habitat exists at HAAF; none were seen during field surveys

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Birds				
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	E/E/--	Nests on coastal cliffs; forages in deep water	Coastal California	No suitable nesting habitat; salt marsh in the project area could provide seasonal foraging habitat; could occur year round in open water, but on an irregular basis; none observed during field surveys
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	--/SSC/--	Winters along the entire California coast and inland over the Coast Ranges into the Central Valley from Tehama County to Fresno County; a permanent resident along the coast from Monterey County to San Diego County, along the Colorado River, Imperial, Riverside, Kern, and King Counties, and the islands off San Francisco; breeds in Siskiyou, Modoc, Lassen, Shasta, Plumas, and Mono Counties; also breeds in the San Francisco Bay area and in Yolo and Sacramento Counties	Rocky coastlines, beaches, inland ponds, and lakes; needs open water for foraging, and nests in riparian forests or on protected islands, usually in snags	No records; no suitable nesting habitat; observed just outside the saltwater marsh and in the wider channels in the marsh at HAAF
Ferruginous hawk (<i>Buteo regalis</i>)	SC/SSC/--	Open terrain in plains and foothills where ground squirrels and other prey are available	Does not nest in California; winter visitor throughout lowland California,, especially in agricultural areas, grassland and savanna	Potential winter visitor; could occur irregularly and in low numbers in the project area

Common and Scientific Name	<u>Legal Status^a</u> Federal/State /CNPS	Habitat Requirements	Distribution in California	Occurrence in the Project Area
Northern Harrier (<i>Circus cyaneus</i>)	--/SSC/--	Grasslands, meadows, marshes, and seasonal and agricultural wetlands providing tall cover	Throughout lowland California; has been recorded in migration at high elevations	Common with 10 seen foraging in fields on January 30, 2002; two harriers were observed foraging in the salt marsh during 1994; another harrier was observed nesting in the HAAF area during 1994 surveys
White-tailed kite (<i>Elanus leucurus</i>)	--/FP/--	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Common with 8 seen foraging in fields on January 30, 2002; nesting not documented yet but probably nests within the project area; nearest known nesting site is approximately 0.5 mile northwest of Novato; suitable foraging habitat occurs in grassland, agricultural, and marsh habitats
Bald eagle (<i>Haliaeetus leucocephalus</i>)	T/E/--	In western North America, nests and roosts in coniferous forests and woodlands within 1 mile of a lake, a reservoir, a stream, or the ocean	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in the Lake Tahoe Basin; reintroduced into the central coast area; winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierras, and east of the Sierra Nevada south of Mono County; range expanding into the western Sierra Nevada foothills	No records; no suitable nesting habitat in the project area; not a known wintering area

Common and Scientific Name	Legal Status ^a Federal/State /CNPS	Habitat Requirements	Distribution in California	Occurrence in the Project Area
American peregrine falcon (<i>Falco peregrinus anatum</i>)	E/E/--	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large populations of other bird species	Permanent resident of the north and south Coast Ranges; may summer on the Cascade and Klamath Ranges south through the Sierra Nevada to Madera County; winters in the Central Valley south through the Transverse and Peninsular Ranges and the plains east of the Cascade Range	No suitable nesting habitat; potential occasional visitor during migration and in winter
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	SC/T/--	Tidal salt marshes associated with heavy growth of pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations	Permanent resident in the San Francisco Bay and eastward through the Delta into Sacramento and San Joaquin Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties	The tidal marsh provides high-quality nesting and foraging habitat; observed in the salt marsh at HAAF (Garcia per. comm.); known in Novato Creek marshes.
California clapper rail (<i>Rallus longirostris obsoletus</i>)	E/E/--	Restricted to salt marshes and tidal sloughs; usually associated with heavy growth of pickleweed; feeds on mollusks removed from mud in sloughs	Marshes around San Francisco Bay and east through the Delta to Suisun Marsh	Tidal marsh provides high-quality nesting and foraging habitat; observed in salt marsh at HAAF (Garcia per. comm.); known in Novato Creek marsh.
Western snowy plover (coastal population) (<i>Charadrius alexandrinus nivosus</i>)	T/SCC/--	Nests on open, flat beaches and alkali flats; forages on beaches and mudflats	Coastal California including the San Francisco Bay Area	No records; no suitable nesting habitat; could forage in seasonal wetlands and mudflats in the project area

Common and Scientific Name	Legal Status ^a Federal/State /CNPS	Habitat Requirements	Distribution in California	Occurrence in the Project Area
California least tern (<i>Sterna antillarum browni</i>)	E/E/--	Nests on sandy, upper ocean beaches, and occasionally uses mudflats; forages on adjacent surf line, estuaries, or the open ocean	Nests on beaches along the San Francisco Bay and Delta and along the southern California coast from southern San Luis Obispo County south to San Diego County	No records; no suitable nesting habitat; could forage in shallow water beyond the salt marsh
Short-eared owl (<i>Asio flammeus</i>)	--/SSC/--	Nests and forages in grasslands and marsh habitats	Throughout lowland California	One observed on January 30, 2002; salt marsh and fields within the project area are suitable nesting and foraging habitat
Western burrowing owl (<i>Athene cunicularia hypugea</i>)	SC/SSC/--	Rodent burrows in sparse grassland, desert, and agricultural habitats	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Formerly nested along the edges of the runway and levees at HAAF; none observed during 1994 field surveys, but reported by HAAF staff in 1995; could be a winter visitor, irregular visitor, or resident
Little willow flycatcher (<i>Empidonax traillii brewsteri</i>)	SC/E/--	Riparian areas and large, wet meadows with abundant willows for breeding; usually found in riparian habitats during migration	Summer range includes a narrow strip along the eastern Sierra Nevada from Shasta County to Kern County and another strip along the western Sierra Nevada from El Dorado County to Madera County; widespread in migration	No records; no suitable nesting habitat occurs in the project area
Saltmarsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	SC/SSC/--	Freshwater marshes in summer and salt or brackish marshes in fall and winter; requires tall grasses, tules, and willow thickets for nesting and cover	Found only in the San Francisco Bay area in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda Counties	Suitable habitat occurs in tidal marshes in the project area; observed at the project area in coastal salt marsh; previously observed in or near confluence of Arroyo San Jose and Pacheco Creek.

Common and Scientific Name	Legal Status ^a Federal/State /CNPS	Habitat Requirements	Distribution in California	Occurrence in the Project Area
Bell's sage sparrow (<i>Amphispiza belli belli</i>)	SC/SCC/--	Prefers chaparral habitats dominated by chamise	Western Sierra foothills from El Dorado County south to Mariposa County, inner Coast Ranges from Shasta County southward, extending to coastal area from Marin County to San Diego County; from southern San Benito County to San Bernardino County; absent from innermost Coast Ranges and desert slopes of San Gabriel and San Bernardino Mountains	No records; no suitable habitat
San Pablo song sparrow (<i>Melospiza melodia samuelis</i>)	SC/SCC/--	Brackish and tidal marshes supporting cattails, tules, various sedges, pickleweed, and riparian scrub	Restricted to San Pablo Bay area	Suitable tidal marsh habitat occurs in the project area; observed in saltmarsh habitat during 1994 and 2002
Mammals				
Suisun ornate shrew (<i>Sorex ornatus sinuosus</i>)	SC/SSC/--	Tidal, salt, and brackish marshes containing pickleweed, grindelia, bulrushes, or cattails; requires driftwood or other objects for nesting cover	Restricted to San Pablo Bay and Suisun Bay, both in Solano County	No records; not likely to occur in the project area
Greater mastiff bat (<i>Eumops perotis callifornicus</i>)	SC/SSC/--	Roosts and breeds in deep, narrow rock crevices; may also use crevices in trees, buildings, and tunnels; forages in a variety of semiarid to arid habitats	Occurs along the eastern San Joaquin Valley from El Dorado County through Kern County; also found along the south Coast, Peninsular, and Transverse Ranges from San Francisco to the Mexico border	No records; no known suitable roosting sites in the project area

Common and Scientific Name	<u>Legal Status^a</u> Federal/State /CNPS	Habitat Requirements	Distribution in California	Occurrence in the Project Area
Long-eared myotis (<i>Myotis evotis</i>)	SC/--/--	Woodlands	Sierra Nevada, Klamath Mountains, Coast Ranges, and Transverse and Peninsular Ranges	The project area is at the edge of the species' range; no suitable roosting sites
Fringed myotis (<i>Myotis thysanodes</i>)	SC/--/--	Open woodlands	Sierra Nevada, Klamath Mountains, Coast Ranges, and Transverse and Peninsular Ranges	The project area is at the edge of the species' range; no suitable roosting sites
Long-legged myotis (<i>Myotis volans</i>)	SC/--/--	Most common in woodlands and forests above 4,000 feet, but occurs from sea level to 11,000 feet	Mountains throughout California	The project area is at the edge of the species' range; no suitable roosting sites
Yuma myotis (<i>Myotis yumanensis</i>)	SC/--/--	Roosts colonially in a variety of natural and human-made sites, including caves, mines, buildings, bridges, and trees; in northern California, maternity colonies are usually in fire-scarred redwoods, pines, or oaks; forages for insects over water bodies	Considered common and widespread in northern California; colonies known from Marin and San Francisco Counties	The project area is at the edge of the species' range; no suitable roosting sites
Pacific western big-eared bat (<i>Plecotus townsendii townsendii</i>)	SC/SSC/--	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings; very sensitive to disturbances and may abandon a roost after onsite visit	Coastal regions from Del Norte County south to Santa Barbara County	No records; no known suitable roosting sites in the project area
Saltmarsh harvest mouse (<i>Reithrodontomys raviventris</i>)	E/E/--	Brackish and salt marshes; primarily associated with pickleweed	San Francisco, San Pablo, and Suisun Bays; western most portion of the Delta	Suitable habitat exists along the salt marshes in the project area; assumed to occur in the salt marsh in the project area
Point Reyes jumping mouse (<i>Zapus trinotatus orarius</i>)	SC/SSC	Wet, marshy areas and closed forests	Confined to the Point Reyes area	No records; no suitable habitat

Note: Unless otherwise indicated, all survey results are taken from U.S. Army Corps of Engineers 1996.

^a Status explanations:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- PE = proposed for federal listing as endangered under the federal Endangered Species Act.
- PT = proposed for federal listing as threatened under the federal Endangered Species Act.
- C = species for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded.
- SC = species of concern; species for which existing information indicates it may warrant listing but for which substantial biological information to support a proposed rule is lacking.
- = no listing.

State

- E = listed as endangered under the California Endangered Species Act.
- T = listed as threatened under the California Endangered Species Act.
- R = listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
- FP = fully protected under the California Fish and Game Code.
- SSC= species of special concern in California.
- = no listing.

California Native Plant Society

- 1A = List 1A species: presumed extinct in California.
 - 1B = List 1B species: rare, threatened, or endangered in California and elsewhere.
 - 2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere.
 - 3 = List 3 species: plants about which more information is needed to determine their status.
 - = no listing.
-



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W2605
Sacramento, California 95825

IN REPLY REFER TO:

1-1-02-SP-0683

January 23, 2002

Rich Walter
Jones & Stokes
268 Grand Avenue
Oakland, California 94610

Subject: Species List for Bel Marin Keys Unit V Wetland Restoration Project

Dear Mr. Walter:

We are sending the enclosed list in response to your 1/18/02 request for information about endangered and threatened species (Enclosure A). The list covers the following U.S. Geological Survey 7 1/2 minute quads:

466A	RICHMOND
466B	SAN QUENTIN
467A	SAN RAFAEL
467B	BOLINAS
483A	CUTTINGS WHARF
483B	SEARS POINT
483C	PETALUMA POINT
483D	MARE ISLAND
484A	PETALUMA RIVER
484B	PETALUMA
484C	SAN GERONIMO
484D	NOVATO

Please note that the lists now contain "species of local concern or conservation significance," as identified in recovery plans. National Marine Fisheries Service species are also now identified as such.

Please read Important Information About Your Species List (enclosed). It explains how we made the list and describes your responsibilities under the Endangered Species Act. Contact Dan Buford, Branch Chief, at (916) 414-6625, if you have any questions about the attached list or your responsibilities under the Endangered Species Act.

For the fastest response to species list requests, address them to the attention of Harry Mossman at this address. You may fax requests to him at 414-6710 or email them to harry_mossman@fws.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Jan C. Knight", with a long horizontal flourish extending to the right.

Jan C. Knight, Chief
Endangered Species Division

Enclosures

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute *quads*. The United States is divided into these quads, which are about the size of San Francisco. If you requested your list by quad name or number, that is what we used. Otherwise, we used the information you sent us to determine which quad or quads to use.

The animals on your species list are ones that occur within, *or may be affected by projects within*, the quads covered by the list. Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them. Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents. Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones *that have actually been observed* in the quad or quads covered by the list. We have also included either a county species list or a list of species in nearby quads. We recommend that you check your project area for these plants. Plants may exist in an area without ever having been detected there.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. For plant surveys, we recommend using the enclosed *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Species*. The results of your surveys should be published in any environmental documents prepared for your project.

State-Listed Species

If a species has been listed as threatened or endangered by the State of California, but not by us nor by the National Marine Fisheries Service, it will appear on your list as a Species of Concern. *However you should contact the California Department of Fish and Game for official information about these species.* Call (916) 322-2493 or write Marketing Manager, California Department of Fish and Game, Natural Diversity Data Base, 1416 Ninth Street, Sacramento, California 95814.

Your Responsibilities Under the Endangered Species Act

All plants and animals identified as *listed* on Enclosure A are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the *take* of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal. Take may include significant habitat

modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a *formal consultation* with the Service. During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a *biological opinion* by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an *incidental take permit*. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project. Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as *critical habitat*. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Maps and boundary descriptions of the critical habitat may be found in the *Federal Register*. The information is also reprinted in the *Code of Federal Regulations* (50 CFR 17.95).

Candidate Species

We recommend that you address impacts to *candidate species*. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Your list may contain a section called *Species of Concern*. This term includes former *category 2 candidate species* and other plants and animals of concern to the Service and other Federal, State and

private conservation agencies and organizations. Some of these species may become candidate species in the future.

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed, candidate and special concern species in your planning, this should not be a problem. We also continually strive to make our information as accurate as possible. Sometimes we learn that a particular species has a different range than we thought. This should not be a problem if you consider the species on the county or surrounding-quad lists that we have enclosed.

To update your list, get an informal list from our web page: <http://sacramento.fws.gov/es>.

**GUIDELINES FOR CONDUCTING AND REPORTING BOTANICAL INVENTORIES
FOR FEDERALLY LISTED, PROPOSED AND CANDIDATE PLANTS
(September 23, 1996)**

These guidelines describe protocols for conducting botanical inventories for federally listed, proposed and candidate plants, and describe minimum standards for reporting results. The Service will use, in part, the information outlined below in determining whether the project under consideration may affect any listed, proposed or candidate plants, and in determining the direct, indirect, and cumulative effects.

Field inventories should be conducted in a manner that will locate listed, proposed, or candidate species (target species) that may be present. The entire project area requires a botanical inventory, except developed agricultural lands. The field investigator(s) should:

1. Conduct inventories at the appropriate times of year when target species are present and identifiable. Inventories will include all potential habitats. Multiple site visits during a field season may be necessary to make observations during the appropriate phenological stage of all target species.
2. If available, use a regional or local reference population to obtain a visual image of the target species and associated habitat(s). If access to reference populations is not available, investigators should study specimens from local herbaria.
3. List every species observed and compile a comprehensive list of vascular plants for the entire project site. Vascular plants need to be identified to a taxonomic level which allows rarity to be determined.
4. Report results of botanical field inventories that include:
 - a. a description of the biological setting, including plant community, topography, soils, potential habitat of target species, and an evaluation of environmental conditions, such as timing or quantity of rainfall, which may influence the performance and expression of target species
 - b. a map of project location showing scale, orientation, project boundaries, parcel size, and map quadrangle name
 - c. survey dates and survey methodology(ies)
 - d. if a reference population is available, provide a written narrative describing the target species reference population(s) used, and date(s) when observations were made
 - e. a comprehensive list of all vascular plants occurring on the project site for each habitat type
 - f. current and historic land uses of the habitat(s) and degree of site alteration
 - g. presence of target species off-site on adjacent parcels, if known
 - h. an assessment of the biological significance or ecological quality of the project site in a local and regional context

5. If target species is(are) found, report results that additionally include:

- a. a map showing federally listed, proposed and candidate species distribution as they relate to the proposed project
- b. if target species is (are) associated with wetlands, a description of the direction and integrity of flow of surface hydrology. If target species is (are) affected by adjacent off-site hydrological influences, describe these factors.
- c. the target species phenology and microhabitat, an estimate of the number of individuals of each target species per unit area; identify areas of high, medium and low density of target species over the project site, and provide acres of occupied habitat of target species. Investigators could provide color slides, photos or color copies of photos of target species or representative habitats to support information or descriptions contained in reports.
- d. the degree of impact(s), if any, of the proposed project as it relates to the potential unoccupied habitat of target habitat.

6. Document findings of target species by completing California Native Species Field Survey Form(s) and submit form(s) to the Natural Diversity Data Base. Documentation of determinations and/or voucher specimens may be useful in cases of taxonomic ambiguities, habitat or range extensions.

7. Report as an addendum to the original survey, any change in abundance and distribution of target plants in subsequent years. Project sites with inventories older than three years from the current date of project proposal submission will likely need additional survey. Investigators need to assess whether an additional survey(s) is (are) needed.

8. Adverse conditions may prevent investigator(s) from determining presence or identifying some target species in potential habitat(s) of target species. Disease, drought, predation, or herbivory may preclude the presence or identification of target species in any year. An additional botanical inventory(ies) in a subsequent year(s) may be required if adverse conditions occur in a potential habitat(s). Investigator(s) may need to discuss such conditions.

9. Guidance from California Department of Fish and Game (CDFG) regarding plant and plant community surveys can be found in Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities, 1984. Please contact the CDFG Regional Office for questions regarding the CDFG guidelines and for assistance in determining any applicable State regulatory requirements.

ENCLOSURE A

Endangered and Threatened Species that May Occur in
or be Affected by Projects in the Selected Quads Listed Below

Reference File No. 1-1-02-SP-0683

Bel Marin Keys Unit V Wetland Restoration Project

January 23, 2002

QUAD: 466A RICHMOND

Listed Species

Mammals

salt marsh harvest mouse, *Reithrodontomys raviventris* (E)

Birds

western snowy plover, *Charadrius alexandrinus nivosus* (T)

bald eagle, *Haliaeetus leucocephalus* (T)

California brown pelican, *Pelecanus occidentalis californicus* (E)

California clapper rail, *Rallus longirostris obsoletus* (E)

California least tern, *Sterna antillarum (=albifrons) browni* (E)

Reptiles

Alameda whipsnake, *Masticophis lateralis euryxanthus* (T)

Critical habitat, Alameda whipsnake, *Masticophis lateralis euryxanthus* (T)

Amphibians

California red-legged frog, *Rana aurora draytonii* (T)

Fish

tidewater goby, *Eucyclogobius newberryi* (E)

Critical habitat, delta smelt, *Hypomesus transpacificus* (T)

delta smelt, *Hypomesus transpacificus* (T)

coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS

Central California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS

Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS

Critical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS

winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS

Central Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS

Critical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFS

Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Plants

pallid manzanita (=Alameda or Oakland Hills manzanita), *Arctostaphylos pallida* (T)

Critical habitat, Santa Cruz tarplant, *Holocarpha macradenia* (T)

Santa Cruz tarplant, *Holocarpha macradenia* (T)

Reference File No. 1-1-02-SP-0683

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Candidate Species**Fish**Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFSCritical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS**Species of Concern****Mammals**Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)greater western mastiff-bat, *Eumops perotis californicus* (SC)small-footed myotis bat, *Myotis ciliolabrum* (SC)long-eared myotis bat, *Myotis evotis* (SC)fringed myotis bat, *Myotis thysanodes* (SC)long-legged myotis bat, *Myotis volans* (SC)Yuma myotis bat, *Myotis yumanensis* (SC)San Francisco dusky-footed woodrat, *Neotoma fuscipes annectens* (SC)salt marsh vagrant shrew, *Sorex vagrans halicoetes* (SC)**Birds**tricolored blackbird, *Agelaius tricolor* (SC)grasshopper sparrow, *Ammodramus savannarum* (SC)Bell's sage sparrow, *Amphispiza belli belli* (SC)short-eared owl, *Asio flammeus* (SC)western burrowing owl, *Athene cunicularia hypugaea* (SC)Aleutian Canada goose, *Branta canadensis leucoparela* (D)ferruginous hawk, *Buteo regalis* (SC)Costa's hummingbird, *Calypte costae* (SC)Vaux's swift, *Chaetura vauxi* (SC)black tern, *Chlidonias niger* (SC)black swift, *Cypseloides niger* (SC)hermit warbler, *Dendroica occidentalis* (SC)white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)little willow flycatcher, *Empidonax traillii brewsteri* (CA)American peregrine falcon, *Falco peregrinus anatum* (D)saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)loggerhead shrike, *Lanius ludovicianus* (SC)black rail, *Laterallus jamaicensis coturniculus* (CA)Lewis' woodpecker, *Melanerpes lewis* (SC)Alameda (South Bay) song sparrow, *Melospiza melodia pusillula* (SC)San Pablo song sparrow, *Melospiza melodia samuelis* (SC)

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long-billed curlew, *Numenius americanus* (SC)bank swallow, *Riparia riparia* (CA)rufous hummingbird, *Selasphorus rufus* (SC)Allen's hummingbird, *Selasphorus sasin* (SC)**Reptiles**northwestern pond turtle, *Clemmys marmorata marmorata* (SC)southwestern pond turtle, *Clemmys marmorata pallida* (SC)California horned lizard, *Phrynosoma coronatum frontale* (SC)**Amphibians**foothill yellow-legged frog, *Rana boylei* (SC)**Fish**green sturgeon, *Acipenser medirostris* (SC)longfin smelt, *Spirinchus thaleichthys* (SC)**Invertebrates**Bridges' Coast Range shoulderband snail, *Helminthoglypta nickliniana bridgesi* (SC)Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)San Francisco lacewing, *Nothochrysa californica* (SC)**Plants**alkali milk-vetch, *Astragalus tener* var. *tener* (SC) *salt marsh owl's clover (=johnny-nip), *Castilleja ambigua* ssp. *ambigua* (SLC)fragrant fritillary, *Fritillaria liliacea* (SC) *Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)most beautiful (uncommon) jewelflower, *Streptanthus albidus* ssp. *peramoenus* (SC)

QUAD: 466B SAN QUENTIN

Listed Species**Mammals**salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**western snowy plover, *Charadrius alexandrinus nivosus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California brown pelican, *Pelecanus occidentalis californicus* (E)California clapper rail, *Rallus longirostris obsoletus* (E)California least tern, *Sterna antillarum* (=albifrons) browni (E)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**tidewater goby, *Eucyclogobius newberryi* (E)

Reference File No. 1-1-02-SP-0683

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delta smelt, *Hypomesus transpacificus* (T)
Critical habitat, coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS
coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS
Central California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS
Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS
Critical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
Central Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS
Critical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFS
Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Plants

Tiburon mariposa lily, *Calochortus tiburonensis* (T)
Tiburon paintbrush, *Castilleja affinis* ssp. *neglecta* (E)
Marin dwarf-flax, *Hesperolinon congestum* (T)
white-rayed pentachaeta, *Pentachaeta bellidiflora* (E) *
Tiburon jewelflower, *Streptanthus niger* (E)
showy Indian clover, *Trifolium amoenum* (E) *

Candidate Species**Fish**

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS
Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern**Mammals**

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)
greater western mastiff-bat, *Eumops perotis californicus* (SC)
long-eared myotis bat, *Myotis evotis* (SC)
fringed myotis bat, *Myotis thysanodes* (SC)
long-legged myotis bat, *Myotis volans* (SC)
Yuma myotis bat, *Myotis yumanensis* (SC)
San Francisco dusky-footed woodrat, *Neotoma fuscipes annectens* (SC)
salt marsh vagrant shrew, *Sorex vagrans halicoetes* (SC)
Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
grasshopper sparrow, *Ammodramus savannarum* (SC)
Bell's sage sparrow, *Amphispiza belli belli* (SC)
short-eared owl, *Asio flammeus* (SC)

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western burrowing owl, *Athene cunicularia hypugaea* (SC)
ferruginous hawk, *Buteo regalis* (SC)
Costa's hummingbird, *Calypte costae* (SC)
Vaux's swift, *Chaetura vauxi* (SC)
black tern, *Chlidonias niger* (SC)
black swift, *Cypseloides niger* (SC)
hermit warbler, *Dendroica occidentalis* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
American peregrine falcon, *Falco peregrinus anatum* (D)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
Harlequin duck, *Histrionicus histrionicus* (SC)
loggerhead shrike, *Lanius ludovicianus* (SC)
black rail, *Laterallus jamaicensis coturniculus* (CA)
Lewis' woodpecker, *Melanerpes lewis* (SC)
San Pablo song sparrow, *Melospiza melodia samuelis* (SC)
long-billed curlew, *Numenius americanus* (SC)
bank swallow, *Riparia riparia* (CA)
rufous hummingbird, *Selasphorus rufus* (SC)
Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)
foothill yellow-legged frog, *Rana boylei* (SC)

Fish

green sturgeon, *Acipenser medirostris* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

Opler's longhorn moth, *Adela oplerella* (SC)
Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)
Marin elfin butterfly, *Incidalla mossii* (SC)
Tiburon microblind harvestman, *Microcina tiburona* (SC)

Plants

salt marsh owl's clover (=johnny-nip), *Castilleja ambigua ssp. ambigua* (SLC)
Franciscan thistle, *Cirsium andrewsii* (SC)

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northcoast bird's-beak, *Cordylanthus maritimus* ssp. *palustris* (SLC) *

Tiburon tarplant, *Hemizonia multifacilis* ssp. *vernalis* (SC)

Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)

QUAD: 467A SAN RAFAEL

Listed Species**Mammals**

Guadalupe fur seal, *Arctocephalus townsendi* (T) NMFS

sei whale, *Balaenoptera borealis* (E) NMFS

blue whale, *Balaenoptera musculus* (E) NMFS

finback (=fin) whale, *Balaenoptera physalus* (E) NMFS

right whale, *Eubalaena glacialis* (E) NMFS

sperm whale, *Physeter catodon* (=macrocephalus) (E) NMFS

salt marsh harvest mouse, *Reithrodontomys raviventris* (E)

Birds

Critical habitat, marbled murrelet, *Brachyramphus marmoratus* (T)

marbled murrelet, *Brachyramphus marmoratus* (T)

bald eagle, *Haliaeetus leucocephalus* (T)

California brown pelican, *Pelecanus occidentalis californicus* (E)

California clapper rail, *Rallus longirostris obsoletus* (E)

California least tern, *Sterna antillarum* (=albifrons) browni (E)

northern spotted owl, *Strix occidentalis caurina* (T)

Amphibians

California red-legged frog, *Rana aurora draytonii* (T)

Fish

tidewater goby, *Eucyclogobius newberryi* (E)

delta smelt, *Hypomesus transpacificus* (T)

Critical habitat, coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS

coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS

Central California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS

Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS

winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS

California coastal chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS

Central Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS

Critical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFS

Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Invertebrates

white abalone, *Haliotis sorenseni* (E) NMFS

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Myrtle's silverspot butterfly, *Speyeria zerene myrtilae* (E)

Plants

Marin dwarf-flax, *Hesperolinon congestum* (T)

Santa Cruz tarplant, *Holocarpha macradenia* (T) *

white-rayed pentachaeta, *Pentachaeta belliciflora* (E) *

Proposed Species

Birds

short-tailed albatross, *Diomedea albatrus* (E)

Candidate Species

Fish

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS

Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Invertebrates

black abalone, *Haliotis cracherodii* (C) NMFS

Species of Concern

Mammals

Point Reyes mountain beaver, *Aplodontia rufa phaea* (SC)

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

gray whale, *Eschrichtius robustus* (D) NMFS

greater western mastiff-bat, *Eumops perotis californicus* (SC)

long-eared myotis bat, *Myotis evotis* (SC)

fringed myotis bat, *Myotis thysanodes* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

grasshopper sparrow, *Ammodramus savannarum* (SC)

Bell's sage sparrow, *Amphispiza belli belli* (SC)

short-eared owl, *Asio flammeus* (SC)

western burrowing owl, *Athene cunicularia hypugaea* (SC)

ferruginous hawk, *Buteo regalis* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

black swift, *Cypseloides niger* (SC)

hermit warbler, *Dendroica occidentalis* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

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American peregrine falcon, *Falco peregrinus anatum* (D)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
Harlequin duck, *Histrionicus histrionicus* (SC)
loggerhead shrike, *Lanius ludovicianus* (SC)
black rail, *Laterallus jamaicensis coturniculus* (CA)
Lewis' woodpecker, *Melanerpes lewis* (SC)
long-billed curlew, *Numenius americanus* (SC)
ashy storm-petrel, *Oceanodroma homochroa* (SC)
bank swallow, *Riparia riparia* (CA)
rufous hummingbird, *Selasphorus rufus* (SC)
Allen's hummingbird, *Selasphorus sasin* (SC)
elegant tern, *Sterna elegans* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)
foothill yellow-legged frog, *Rana boylei* (SC)

Fish

Pacific lamprey, *Lampetra tridentata* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

Opler's longhorn moth, *Adela oplerella* (SC)
sandy beach tiger beetle, *Cicindela hirticollis gravida* (SC)
globose dune beetle, *Coelus globosus* (SC)
Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)
Marin elfin butterfly, *Incisalia mossii* (SC)
bumblebee scarab beetle, *Lichnanthe ursina* (SC)

Plants

Tamalpais manzanita, *Arctostaphylos hookeri ssp. montana* (SC)
marsh milkvetch (=brine milk-vetch, =marsh locoweed), *Astragalus pycnostachyus var. pycnostachyus* (SLC)
salt marsh owl's clover (=johnny-nip), *Castilleja ambigua ssp. ambigua* (SLC)
San Francisco Bay spineflower, *Chortzanthe cuspidata var. cuspidata* (SC)
Franciscan thistle, *Cirsium andrewsii* (SC)
Mt. Tamalpais thistle, *Cirsium hydrophilum var. vaseyi* (SC)
Round-headed Chinese houses, *Collinsia corymbosa* (SC) *?
northcoast bird's-beak, *Cordylanthus maritimus ssp. palustris* (SLC)

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woolly-headed gilia, *Gilia capitata* ssp. *tomentosa* (SC) *

San Francisco gumplant, *Grindelia hirsutula* var. *maritima* (SC)

Diablo helianthella (=rock-rose), *Helianthella castanea* (SC) *

Tiburon tarplant, *Hemizonia multicaulis* ssp. *vernalis* (SC)

Tamalpais lessingia, *Lessingia micradenia* var. *micradenia* (SC)

Santa Cruz microseris, *Microseris decipiens* (SC)

curly-leaved (=curlyleaf) monardella, *Monardella undulata* (SC) *?

Gairdner's yampah, *Perideridia gairdneri* ssp. *gairdneri* (SC)

hairless allocarya (=popcornflower), *Plagiobothrys glaber* (SLC) **

northcoast semaphore grass, *Pleuropogon hooverianus* (SC)

Marin knotweed, *Polygonum marinense* (SLC)

Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)

Tamalpais streptanthus, *Streptanthus batrachopus* (SC)

QUAD: 467B BOLINAS

Listed Species**Mammals**

Guadalupe fur seal, *Arctocephalus townsendi* (T) NMFS

sei whale, *Balaenoptera borealis* (E) NMFS

blue whale, *Balaenoptera musculus* (E) NMFS

finback (=fin) whale, *Balaenoptera physalus* (E) NMFS

right whale, *Eubalaena glacialis* (E) NMFS

Critical Habitat, Steller (=northern) sea-lion, *Eumetopias jubatus* (T) NMFS

Steller (=northern) sea-lion, *Eumetopias jubatus* (T) NMFS

sperm whale, *Physeter catodon* (=macrocephalus) (E) NMFS

Birds

Critical habitat, marbled murrelet, *Brachyramphus marmoratus* (T)

marbled murrelet, *Brachyramphus marmoratus* (T)

western snowy plover, *Charadrius alexandrinus nivosus* (T)

bald eagle, *Haliaeetus leucocephalus* (T)

California brown pelican, *Pelecanus occidentalis californicus* (E)

California clapper rail, *Rallus longirostris obsoletus* (E) *

California least tern, *Sterna antillarum* (=albitrons) browni (E)

northern spotted owl, *Strix occidentalis caurina* (T)

Reptiles

loggerhead turtle, *Caretta caretta* (T) NMFS

green turtle, *Chelonia mydas* (incl. *agassizi*) (T) NMFS

leatherback turtle, *Dermochelys coriacea* (E) NMFS

olive (=Pacific) ridley sea turtle, *Lepidochelys olivacea* (T) NMFS

Amphibians

California red-legged frog, *Rana aurora draytonii* (T)

Fish

tidewater goby, *Eucyclogobius newberryi* (E)

delta smelt, *Hypomesus transpacificus* (T)

Critical habitat, coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS

coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS

Central California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS

Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS

California coastal chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS

Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Invertebrates

white abalone, *Haliotis sorenseni* (E) NMFS

Myrtle's silverspot butterfly, *Speyeria zerene myrtilae* (E)

Plants

Sonoma alopecurus, *Alopecurus aequalis* var. *sonomensis* (E)

Marin dwarf-flax, *Hesperolinon congestum* (T)

showy Indian clover, *Trifolium amoenum* (E) *

Proposed Species

Birds

short-tailed albatross, *Diomedea albatrus* (E)

Candidate Species

Invertebrates

black abalone, *Haliotis cracherodii* (C) NMFS

Species of Concern

Mammals

Point Reyes mountain beaver, *Aplodontia rufa phaea* (SC)

Pacific western big-eared bat, *Corynorhinus* (=Plecotus) *townsendii townsendii* (SC)

gray whale, *Eschrichtius robustus* (D) NMFS

greater western mastiff-bat, *Eumops perotis californicus* (SC)

long-eared myotis bat, *Myotis evotis* (SC)

fringed myotis bat, *Myotis thysanodes* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
grasshopper sparrow, *Ammodramus savannarum* (SC)
Bell's sage sparrow, *Amphispiza belli belli* (SC)
short-eared owl, *Asio flammeus* (SC)
western burrowing owl, *Athene cunicularia hypugaea* (SC)
ferruginous hawk, *Buteo regalis* (SC)
Vaux's swift, *Chaetura vauxi* (SC)
black swift, *Cypseloides niger* (SC)
hermit warbler, *Dendroica occidentalis* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
American peregrine falcon, *Falco peregrinus anatum* (D)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
Harlequin duck, *Histrionicus histrionicus* (SC)
loggerhead shrike, *Lanius ludovicianus* (SC)
black rail, *Laterallus jamaicensis coturniculus* (CA)
Lewis' woodpecker, *Melanerpes lewis* (SC)
long-billed curlew, *Numenius americanus* (SC)
ashy storm-petrel, *Oceanodroma homochroa* (SC)
bank swallow, *Riparia riparia* (CA)
rufous hummingbird, *Selasphorus rufus* (SC)
Allen's hummingbird, *Selasphorus sasin* (SC)
elegant tern, *Sterna elegans* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)

Fish

Pacific lamprey, *Lampetra tridentata* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

Opler's longhorn moth, *Adela oplerella* (SC)
sandy beach tiger beetle, *Cicindela hirticollis grvida* (SC)
globose dune beetle, *Coelus globosus* (SC)
Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)
Marin elfin butterfly, *Incisalia mossii* (SC)

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bumblebee scarab beetle, *Lichnanthe ursina* (SC)**Plants**Tamalpais manzanita, *Arctostaphylos hookeri* ssp. *montana* (SC)marsh milkvetch (=brine milk-vetch, =marsh locoweed), *Astragalus pycnostachyus* var. *pycnostachyus* (SLC)salt marsh owl's clover (=johnny-nip), *Castilleja ambigua* ssp. *ambigua* (SLC)Mason's ceanothus, *Ceanothus masonii* (SC)Franciscan thistle, *Cirsium andrewsii* (SC)Mt. Tamalpais thistle, *Cirsium hydrophilum* var. *vaseyi* (SC)Round-headed Chinese houses, *Collinsia corymbosa* (SC) *?northcoast bird's-beak, *Cordylanthus maritimus* ssp. *palustris* (SLC)woolly-headed gilia, *Gilia capitata* ssp. *tomentosa* (SC) *San Francisco gumplant, *Grindelia hirsutula* var. *maritima* (SC)Tiburon tarplant, *Hemizonia multicaulis* ssp. *vernalis* (SC)Tamalpais lessingia, *Lessingia micradenia* var. *micradenia* (SC)large-flowered (=flower) linanthus, *Linanthus grandiflorus* (SC)curly-leaved (=curlyleaf) monardella, *Monardella undulata* (SC)Marin checkermallow, *Sidalcea hickmanii* ssp. *viridis* (SC)Pacific cordgrass (=California cordgrass), *Sperina foliosa* (SLC)Tamalpais streptanthus, *Streptanthus batrachopus* (SC)**QUAD: 483A CUTTINGS WHARF****Listed Species****Mammals**salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**western snowy plover, *Charadrius alexandrinus nivosus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California brown pelican, *Pelecanus occidentalis californicus* (E)California clapper rail, *Rallus longirostris obsoletus* (E)California least tern, *Sterna antillarum* (=albifrons) *browni* (E)northern spotted owl, *Strix occidentalis caurina* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**tidewater goby, *Eucyclogobius newberryi* (E)delta smelt, *Hypomesus transpacificus* (T)coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFSCentral California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS

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Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS
Critical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
Central Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS
Critical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFS
Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Invertebrates

vernal pool fairy shrimp, *Branchinecta lynchi* (T)
callippe silverspot butterfly, *Speyeria callippe callippe* (E)
California freshwater shrimp, *Syncaris pacifica* (E)

Plants

soft bird's-beak, *Cordylanthus mollis ssp. mollis* (E)
Contra Costa goldfields, *Lasthenia conjugens* (E)
showy Indian clover, *Trifolium amoenum* (E) *

Candidate Species**Fish**

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS
Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern**Mammals**

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)
greater western mastiff-bat, *Eumops perotis californicus* (SC)
long-eared myotis bat, *Myotis evotis* (SC)
fringed myotis bat, *Myotis thysanodes* (SC)
long-legged myotis bat, *Myotis volans* (SC)
Yuma myotis bat, *Myotis yumanensis* (SC)
Suisun ornate shrew, *Sorex ornatus sinuosus* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
grasshopper sparrow, *Ammodramus savannarum* (SC)
Bell's sage sparrow, *Amphispiza belli belli* (SC)
short-eared owl, *Asio flammeus* (SC)
western burrowing owl, *Athene cunicularia hypugaea* (SC)
ferruginous hawk, *Buteo regalis* (SC)
Vaux's swift, *Chaetura vauxi* (SC)
black tern, *Chlidonias niger* (SC)
black swift, *Cypseloides niger* (SC)

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hermit warbler, *Dendroica occidentalis* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
American peregrine falcon, *Falco peregrinus anatum* (D)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
loggerhead shrike, *Lanius ludovicianus* (SC)
black rail, *Laterallus jamaicensis coturniculus* (CA)
Lewis' woodpecker, *Melanerpes lewis* (SC)
San Pablo song sparrow, *Melospiza melodia samuelis* (SC)
long-billed curlew, *Numenius americanus* (SC)
bank swallow, *Riparia riparia* (CA)
rufous hummingbird, *Selasphorus rufus* (SC)
Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

foothill yellow-legged frog, *Rana boylei* (SC)
western spadefoot toad, *Scaphiopus hammondi* (SC)

Fish

green sturgeon, *Acipenser medirostris* (SC)
river lamprey, *Lampetra ayresi* (SC)
Pacific lamprey, *Lampetra tridentata* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)

Plants

Suisun Marsh aster, *Aster lentus* (SC)
San Joaquin spearscale (=saltbush), *Atriplex joaquiniana* (SC)
salt marsh owl's clover (=johnny-nip), *Castilleja ambigua ssp. ambigua* (SLC)
delta tule-pea, *Lathyrus jepsonii var. jepsonii* (SC)
legenere, *Legenere limosa* (SC)
Mason's lilaeopsis, *Lilaeopsis masonii* (SLC)
Marin knotweed, *Polygonum marinense* (SLC)
Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)

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QUAD: 483B SEARS POINT

Listed Species**Mammals**salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**western snowy plover, *Charadrius alexandrinus nivosus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California brown pelican, *Pelecanus occidentalis californicus* (E)California clapper rail, *Rallus longirostris obsoletus* (E)California least tern, *Sterna antillarum (=albigrons) browni* (E)northern spotted owl, *Strix occidentalis caurina* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**tidewater goby, *Eucyclogobius newberryi* (E)delta smelt, *Hypomesus transpacificus* (T)coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFSCentral California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFSCentral Valley steelhead, *Oncorhynchus mykiss* (T) NMFSCritical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFSwinter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFSCentral Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFSCritical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFSSacramento splittail, *Pogonichthys macrolepidotus* (T)**Invertebrates**California freshwater shrimp, *Syncaris pacifica* (E)**Plants**Baker's stickyseed, *Blennosperma bakeri* (E)**Candidate Species****Birds**Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C) *?**Fish**Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFSCritical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS**Species of Concern****Mammals**Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

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greater western mastiff-bat, *Eumops perotis californicus* (SC)
long-eared myotis bat, *Myotis evotis* (SC)
fringed myotis bat, *Myotis thysanodes* (SC)
long-legged myotis bat, *Myotis volans* (SC)
Yuma myotis bat, *Myotis yumanensis* (SC)
Suisun ornate shrew, *Sorex ornatus sinuosus* (SC)
Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
grasshopper sparrow, *Ammodramus savannarum* (SC)
Bell's sage sparrow, *Amphispiza belli belli* (SC)
short-eared owl, *Asio flammeus* (SC)
western burrowing owl, *Athene cunicularia hypugaea* (SC)
ferruginous hawk, *Buteo regalis* (SC)
Vaux's swift, *Chaetura vauxi* (SC)
black tern, *Chlidonias niger* (SC)
black swift, *Cypseloides niger* (SC)
hermit warbler, *Dendroica occidentalis* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
American peregrine falcon, *Falco peregrinus anatum* (D)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
loggerhead shrike, *Lanius ludovicianus* (SC)
black rail, *Laterallus jamaicensis coturniculus* (CA)
Lewis' woodpecker, *Melanerpes lewis* (SC)
San Pablo song sparrow, *Melospiza melodia samuelis* (SC)
long-billed curlew, *Numenius americanus* (SC)
bank swallow, *Riparia riparia* (CA)
rufous hummingbird, *Selasphorus rufus* (SC)
Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)
foothill yellow-legged frog, *Rana boylei* (SC)
western spadefoot toad, *Scaphiopus hammondi* (SC)

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Fishgreen sturgeon, *Acipenser medirostris* (SC)river lamprey, *Lampetra ayresii* (SC)Pacific lamprey, *Lampetra tridentata* (SC)longfin smelt, *Spirinchus thaleichthys* (SC)**Invertebrates**Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)**Plants**salt marsh owl's clover (=johnny-nip), *Castilleja ambigua* ssp. *ambigua* (SLC)Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)water sack clover, *Trifolium depauperatum* var. *hydrophilum* (SC)**QUAD: 483C PETALUMA POINT****Listed Species****Mammals**salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**western snowy plover, *Charadrius alexandrinus nivosus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California brown pelican, *Pelecanus occidentalis californicus* (E)California clapper rail, *Rallus longirostris obsoletus* (E)California least tern, *Sterna antillarum* (=albifrons) *browni* (E)northern spotted owl, *Strix occidentalis caurina* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**delta smelt, *Hypomesus transpacificus* (T)coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFSCentral California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFSCentral Valley steelhead, *Oncorhynchus mykiss* (T) NMFSCritical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFSwinter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFSCentral Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFSCritical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFSSacramento splittail, *Pogonichthys macrolepidotus* (T)**Invertebrates**California freshwater shrimp, *Syncaris pacifica* (E)

Candidate Species**Fish**

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS

Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern**Mammals**

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

greater western mastiff-bat, *Eumops perotis californicus* (SC)

long-eared myotis bat, *Myotis evotis* (SC)

fringed myotis bat, *Myotis thysanodes* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

Suisun ornate shrew, *Sorex ornatus sinuosus* (SC)

Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

grasshopper sparrow, *Ammodramus savannarum* (SC)

Bell's sage sparrow, *Amphispiza belli belli* (SC)

short-eared owl, *Asio flammeus* (SC)

western burrowing owl, *Athene cunicularia hypugaea* (SC)

ferruginous hawk, *Buteo regalis* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

black tern, *Chlidonias niger* (SC)

black swift, *Cypseloides niger* (SC)

hermit warbler, *Dendroica occidentalis* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

American peregrine falcon, *Falco peregrinus anatum* (D)

saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)

loggerhead shrike, *Lanius ludovicianus* (SC)

black rail, *Laterallus jamaicensis coturniculus* (CA)

Lewis' woodpecker, *Melanerpes lewis* (SC)

San Pablo song sparrow, *Melospiza melodia samuells* (SC)

long-billed curlew, *Numenius americanus* (SC)

bank swallow, *Riparia riparia* (CA)

rufous hummingbird, *Selasphorus rufus* (SC)

Allen's hummingbird, *Selasphorus sasin* (SC)

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Reptilesnorthwestern pond turtle, *Clemmys marmorata marmorata* (SC)California horned lizard, *Phrynosoma coronatum frontale* (SC)**Amphibians**Northern red-legged frog, *Rana aurora aurora* (SC)foothill yellow-legged frog, *Rana boylei* (SC)western spadefoot toad, *Scaphiopus hammondi* (SC)**Fish**green sturgeon, *Acipenser medirostris* (SC)river lamprey, *Lampetra ayresi* (SC)Pacific lamprey, *Lampetra tridentata* (SC)longfin smelt, *Spirinchus thaleichthys* (SC)**Invertebrates**Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)Marin elfin butterfly, *Incisalia mossii* (SC)**Plants**salt marsh owl's clover (=johnny-nip), *Castilleja ambigua ssp. ambigua* (SLC)Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)**QUAD: 483D MARE ISLAND****Listed Species****Mammals**salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**western snowy plover, *Charadrius alexandrinus nivosus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California brown pelican, *Pelecanus occidentalis californicus* (E)California clapper rail, *Rallus longirostris obsoletus* (E)California least tern, *Sterna antillarum (=albitrons) browni* (E)northern spotted owl, *Strix occidentalis caurina* (T)**Reptiles**Alameda whipsnake, *Masticophis lateralis euryxanthus* (T)Critical habitat, Alameda whipsnake, *Masticophis lateralis euryxanthus* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**Critical habitat, delta smelt, *Hypomesus transpacificus* (T)delta smelt, *Hypomesus transpacificus* (T)

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coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFS
 Central California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFS
 Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS
 Critical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
 winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
 Central Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS
 Critical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFS
 Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Invertebrates

callippe silverspot butterfly, *Speyeria callippe callippe* (E)
 California freshwater shrimp, *Syncaris pacifica* (E)

Plants

soft bird's-beak, *Cordylanthus mollis ssp. mollis* (E)

Candidate Species**Fish**

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS
 Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern**Mammals**

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)
 greater western mastiff-bat, *Eumops perotis californicus* (SC)
 long-eared myotis bat, *Myotis evotis* (SC)
 fringed myotis bat, *Myotis thysanodes* (SC)
 long-legged myotis bat, *Myotis volans* (SC)
 Yuma myotis bat, *Myotis yumanensis* (SC)
 San Francisco dusky-footed woodrat, *Neotoma fuscipes annectens* (SC)
 Suisun ornate shrew, *Sorex ornatus sinuosus* (SC)
 salt marsh vagrant shrew, *Sorex vagrans halicoetes* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
 grasshopper sparrow, *Ammodramus savannarum* (SC)
 Bell's sage sparrow, *Amphispiza belli belli* (SC)
 short-eared owl, *Asio flammeus* (SC)
 western burrowing owl, *Athene cunicularia hypugaea* (SC)
 ferruginous hawk, *Buteo regalis* (SC)
 Costa's hummingbird, *Calypte costae* (SC)
 Vaux's swift, *Chaetura vauxi* (SC)

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black tern, *Chlidonias niger* (SC)
black swift, *Cypseloides niger* (SC)
hermit warbler, *Dendroica occidentalis* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
American peregrine falcon, *Falco peregrinus anatum* (D)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
loggerhead shrike, *Lanius ludovicianus* (SC)
black rail, *Laterallus jamaicensis coturniculus* (CA)
Lewis' woodpecker, *Melanerpes lewis* (SC)
San Pablo song sparrow, *Melospiza melodia samuelis* (SC)
long-billed curlew, *Numenius americanus* (SC)
bank swallow, *Riparia riparia* (CA)
rufous hummingbird, *Selasphorus rufus* (SC)
Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
southwestern pond turtle, *Clemmys marmorata pallida* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

foothill yellow-legged frog, *Rana boylei* (SC)
western spadefoot toad, *Scaphiopus hammondi* (SC)

Fish

green sturgeon, *Acipenser medirostris* (SC)
river lamprey, *Lampetra ayresi* (SC)
Pacific lamprey, *Lampetra tridentata* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)

Plants

Suisun Marsh aster, *Aster lentus* (SC)
salt marsh owl's clover (=johnny-nip), *Castilleja ambigua ssp. ambigua* (SLC)
Mason's lilaeopsis, *Lilaeopsis masonii* (SLC)
Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)

QUAD: 484A PETALUMA RIVER

Listed Species**Mammals**

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salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**western snowy plover, *Charadrius alexandrinus nivosus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California clapper rail, *Rallus longirostris obsoletus* (E)California least tern, *Sterna antillarum (=albifrons) browni* (E)northern spotted owl, *Strix occidentalis caurina* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**delta smelt, *Hypomesus transpacificus* (T)coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFSCentral California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFSCentral Valley steelhead, *Oncorhynchus mykiss* (T) NMFSwinter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFSCentral Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFSCritical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFS**Invertebrates**California freshwater shrimp, *Syncaris pacifica* (E)**Plants**soft bird's-beak, *Cordylanthus mollis ssp. mollis* (E) ***Candidate Species****Birds**Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C) ****Fish**Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFSCritical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS**Species of Concern****Mammals**Point Reyes mountain beaver, *Aplodontia rufa phaea* (SC)Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)greater western mastiff-bat, *Eumops perotis californicus* (SC)long-eared myotis bat, *Myotis evotis* (SC)fringed myotis bat, *Myotis thysanodes* (SC)long-legged myotis bat, *Myotis volans* (SC)Yuma myotis bat, *Myotis yumanensis* (SC)Suisun ornate shrew, *Sorex ornatus sinuosus* (SC)

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Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

grasshopper sparrow, *Ammodramus savannarum* (SC)

Bell's sage sparrow, *Amphispiza belli belli* (SC)

short-eared owl, *Asio flammeus* (SC)

western burrowing owl, *Athene cunicularia hypugaea* (SC)

ferruginous hawk, *Buteo regalis* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

black tern, *Chlidonias niger* (SC)

black swift, *Cypseloides niger* (SC)

hermit warbler, *Dendroica occidentalis* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

American peregrine falcon, *Falco peregrinus anatum* (D)

saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)

loggerhead shrike, *Lanius ludovicianus* (SC)

Lewis' woodpecker, *Melanerpes lewis* (SC)

San Pablo song sparrow, *Melospiza melodia samuelis* (SC)

long-billed curlew, *Numenius americanus* (SC)

bank swallow, *Riparia riparia* (CA)

rufous hummingbird, *Selasphorus rufus* (SC)

Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)

California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)

foothill yellow-legged frog, *Rana boylei* (SC)

western spadefoot toad, *Scaphiopus hammondi* (SC)

Fish

Pacific lamprey, *Lampetra tridentata* (SC)

longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

Marin blind harvestman, *Calicina diminua* (SC)

Sonoma arctic skipper, *Carterocephalus palaemon ssp* (SC)

Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)

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Plantssalt marsh owl's clover (=johnny-nip), *Castilleja ambigua* ssp. *ambigua* (SLC)fragrant fritillary, *Fritillaria liliacea* (SC)Petaluma popcornflower, *Plagiobothrys mollis* var. *vestitus* (SLC) *Marin knotweed, *Polygonum marinense* (SLC)**QUAD: 484B PETALUMA****Listed Species****Mammals**salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**bald eagle, *Haliaeetus leucocephalus* (T)California least tern, *Sterna antillarum* (=albitrons) browni (E)northern spotted owl, *Strix occidentalis caurina* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**tidewater goby, *Eucyclogobius newberryi* (E)delta smelt, *Hypomesus transpacificus* (T)coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFSCentral California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFSCentral Valley steelhead, *Oncorhynchus mykiss* (T) NMFSCalifornia coastal chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS**Invertebrates**Myrtle's silverspot butterfly, *Speyeria zerene myrtilae* (E)California freshwater shrimp, *Syncaris pacifica* (E)**Plants**Baker's larkspur, *Delphinium bakeri* (E)showy Indian clover, *Trifolium amoenum* (E) ***Candidate Species****Birds**Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C) *?**Species of Concern****Mammals**Point Reyes mountain beaver, *Aplodontia rufa phaea* (SC)Pacific western big-eared bat, *Corynorhinus* (=Plecotus) *townsendii townsendii* (SC)greater western mastiff-bat, *Eumops perotis californicus* (SC)long-eared myotis bat, *Myotis evotis* (SC)

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fringed myotis bat, *Myotis thysanodes* (SC)
long-legged myotis bat, *Myotis volans* (SC)
Yuma myotis bat, *Myotis yumanensis* (SC)
Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
grasshopper sparrow, *Ammodramus savannarum* (SC)
short-eared owl, *Asio flammeus* (SC)
western burrowing owl, *Athene cunicularia hypugaea* (SC)
ferruginous hawk, *Buteo regalis* (SC)
Vaux's swift, *Chaetura vauxi* (SC)
black tern, *Chlidonias niger* (SC)
black swift, *Cypseloides niger* (SC)
hermit warbler, *Dendroica occidentalis* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
American peregrine falcon, *Falco peregrinus anatum* (D)
saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
loggerhead shrike, *Lanius ludovicianus* (SC)
Lewis' woodpecker, *Melanerpes lewis* (SC)
long-billed curlew, *Numenius americanus* (SC)
bank swallow, *Riparia riparia* (CA)
rufous hummingbird, *Selasphorus rufus* (SC)
Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)
foothill yellow-legged frog, *Rana boylei* (SC)

Fish

Pacific lamprey, *Lampetra tridentata* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

Sonoma arctic skipper, *Carterocephalus palaemon ssp* (SC)
Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)

Plants

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alkali milk-vetch, *Astragalus tener* var. *tener* (SC) *Petaluma popcornflower, *Plagiobothrys mollis* var. *vestitus* (SLC) *

QUAD: 484C SAN GERONIMO

Listed Species**Birds**Critical habitat, marbled murrelet, *Brachyramphus marmoratus* (T)marbled murrelet, *Brachyramphus marmoratus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California least tern, *Sterna antillarum* (=albifrons) *browni* (E)northern spotted owl, *Strix occidentalis caurina* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**tidewater goby, *Eucyclogobius newberryi* (E)delta smelt, *Hypomesus transpacificus* (T)coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFSCentral California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFSCentral Valley steelhead, *Oncorhynchus mykiss* (T) NMFSCalifornia coastal chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS**Invertebrates**Myrtle's silverspot butterfly, *Speyeria zerene myrteae* (E)California freshwater shrimp, *Syncaris pacifica* (E)**Plants**Tiburon paintbrush, *Castilleja affinis* ssp. *neglecta* (E)Marin dwarf-flax, *Hesperolinon congestum* (T) ***Candidate Species****Birds**Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C) *?**Species of Concern****Mammals**Point Reyes mountain beaver, *Aplodontia rufa phaea* (SC)Pacific western big-eared bat, *Corynorhinus* (=Plecotus) *townsendii townsendii* (SC)greater western mastiff-bat, *Eumops perotis californicus* (SC)long-eared myotis bat, *Myotis evotis* (SC)fringed myotis bat, *Myotis thysanodes* (SC)long-legged myotis bat, *Myotis volans* (SC)Yuma myotis bat, *Myotis yumanensis* (SC)

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Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

grasshopper sparrow, *Ammodramus savannarum* (SC)

short-eared owl, *Asio flammeus* (SC)

western burrowing owl, *Athene cunicularia hypugaea* (SC)

ferruginous hawk, *Buteo regalis* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

black swift, *Cypseloides niger* (SC)

hermit warbler, *Dendroica occidentalis* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

American peregrine falcon, *Falco peregrinus anatum* (D)

saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)

loggerhead shrike, *Lanius ludovicianus* (SC)

Lewis' woodpecker, *Melanerpes lewis* (SC)

long-billed curlew, *Numerius americanus* (SC)

ashy storm-petrel, *Oceanodroma homochroa* (SC)

bank swallow, *Riparia riparia* (CA)

rufous hummingbird, *Selasphorus rufus* (SC)

Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)

California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

Northern red-legged frog, *Rana aurora aurora* (SC)

foothill yellow-legged frog, *Rana boylei* (SC)

Fish

Pacific lamprey, *Lampetra tridentata* (SC)

longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

sandy beach tiger beetle, *Cicindela hirticollis gravida* (SC)

globose dune beetle, *Coelus globosus* (SC)

Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)

Marin elfin butterfly, *Incisalia mossii* (SC)

Plants

marsh milkvetch (=brine milk-vetch, =marsh locoweed), *Astragalus pycnostachyus* var. *pycnostachyus* (SLC)

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fragrant fritillary, *Fritillaria liliacea* (SC)Tiburon tarplant, *Hemizonia multicaulis* ssp. *vernalis* (SC)northcoast semaphore grass, *Pleuropogon hooverianus* (SC)

QUAD: 484D NOVATO

Listed Species**Mammals**salt marsh harvest mouse, *Reithrodontomys raviventris* (E)**Birds**western snowy plover, *Charadrius alexandrinus nivosus* (T)bald eagle, *Haliaeetus leucocephalus* (T)California brown pelican, *Pelecanus occidentalis californicus* (E)California clapper rail, *Rallus longirostris obsoletus* (E)California least tern, *Sterna antillarum* (=albifrons) browni (E)northern spotted owl, *Strix occidentalis caurina* (T)**Amphibians**California red-legged frog, *Rana aurora draytonii* (T)**Fish**tidewater goby, *Eucyclogobius newberryi* (E)delta smelt, *Hypomesus transpacificus* (T)coho salmon - central CA coast, *Oncorhynchus kisutch* (T) NMFSCentral California Coastal steelhead, *Oncorhynchus mykiss* (T) NMFSCentral Valley steelhead, *Oncorhynchus mykiss* (T) NMFSwinter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFSCentral Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFSCritical Habitat, Central Valley spring-run chinook, *Oncorhynchus tshawytscha* (T) NMFSSacramento splittail, *Pogonichthys macrolepidotus* (T)**Invertebrates**California freshwater shrimp, *Syncaris pacifica* (E)**Plants**Marin dwarf-flax, *Hesperolinon congestum* (T)**Candidate Species****Birds**Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C) *?**Fish**Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFSCritical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern**Mammals**

- Point Reyes mountain beaver, *Aplodontia rufa phaea* (SC)
- Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)
- greater western mastiff-bat, *Eumops perotis californicus* (SC)
- long-eared myotis bat, *Myotis evotis* (SC)
- fringed myotis bat, *Myotis thysanodes* (SC)
- long-legged myotis bat, *Myotis volans* (SC)
- Yuma myotis bat, *Myotis yumanensis* (SC)
- Suisun orate shrew, *Sorex ornatus sinuosus* (SC)
- Point Reyes jumping mouse, *Zapus trinotatus orarius* (SC)

Birds

- tricolored blackbird, *Agelaius tricolor* (SC)
- grasshopper sparrow, *Ammodramus savannarum* (SC)
- Bell's sage sparrow, *Amphispiza belli belli* (SC)
- short-eared owl, *Asio flammeus* (SC)
- western burrowing owl, *Athene cunicularia hypugaea* (SC)
- ferruginous hawk, *Buteo regalis* (SC)
- Vaux's swift, *Chaetura vauxi* (SC)
- black tern, *Chlidonias niger* (SC)
- black swift, *Cypseloides niger* (SC)
- hermit warbler, *Dendroica occidentalis* (SC)
- white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
- little willow flycatcher, *Empidonax traillii brewsteri* (CA)
- American peregrine falcon, *Falco peregrinus anatum* (D)
- saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)
- loggerhead shrike, *Lanius ludovicianus* (SC)
- black rail, *Laterallus jamaicensis coturniculus* (CA)
- Lewis' woodpecker, *Melanerpes lewis* (SC)
- San Pablo song sparrow, *Melospiza melodia samuelis* (SC)
- long-billed curlew, *Numenius americanus* (SC)
- bank swallow, *Riparia riparia* (CA)
- rufous hummingbird, *Selasphorus rufus* (SC)
- Allen's hummingbird, *Selasphorus sasin* (SC)

Reptiles

- northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
- California horned lizard, *Phrynosoma coronatum frontale* (SC)

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Amphibiansfoothill yellow-legged frog, *Rana boylei* (SC)western spadefoot toad, *Scaphiopus hammondi* (SC)**Fish**Pacific lamprey, *Lampetra tridentata* (SC)longfin smelt, *Spirinchus thaleichthys* (SC)**Invertebrates**Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)Marin elfin butterfly, *Incisalia mossii* (SC)**Plants**salt marsh owl's clover (=johnny-nip), *Castilleja ambigua* ssp. *ambigua* (SLC)northcoast bird's-beak, *Cordylanthus maritimus* ssp. *palustris* (SLC)fragrant fritillary, *Fritillaria liliacea* (SC)Pacific cordgrass (=California cordgrass), *Spartina foliosa* (SLC)**KEY:**

(E)	<i>Endangered</i>	Listed (in the Federal Register) as being in danger of extinction.
(T)	<i>Threatened</i>	Listed as likely to become endangered within the foreseeable future.
(P)	<i>Proposed</i>	Officially proposed (in the Federal Register) for listing as endangered or threatened.
(PX)	<i>Proposed Critical Habitat</i>	Proposed as an area essential to the conservation of the species.
(C)	<i>Candidate</i>	Candidate to become a <i>proposed</i> species.
(SC)	<i>Species of Concern</i>	May be endangered or threatened. Not enough biological information has been gathered to support listing at this time.
(SLC)	<i>Species of Local Concern</i>	Species of local or regional concern or conservation significance.
(MB)	<i>Migratory Bird</i>	Migratory bird
NMFS	<i>NMFS species</i>	Under the jurisdiction of the National Marine Fisheries Service. Contact them directly.
(D)	<i>Delisted</i>	Delisted. Status to be monitored for 5 years.
(CA)	<i>State-Listed</i>	Listed as threatened or endangered by the State of California.
(*)	<i>Extirpated</i>	Possibly extirpated from this quad.
(**)	<i>Extinct</i>	Possibly extinct.
	<i>Critical Habitat</i>	Area essential to the conservation of a species.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404

MAR - 6 2002

In response refer to:
151422SWR02SR6233:ES

Rich Walter, Project Manager
Jones and Stokes
268 Grand Avenue
Oakland, California 94610

Dear Mr. Walter:

Thank you for your letter of January 18, 2002, regarding the presence of Federally listed (or proposed for listing) threatened or endangered species or critical habitat that may be affected by the Bel Marin Keys Unit V Wetland Restoration project in Novato, California.

Endangered Species Act

Available information indicates that the following species may occur in the project area:

- Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*)**
 - endangered (January 4, 1994, 59 FR 440)
 - critical habitat (June 16, 1993, 58 FR 33212)
- Central Valley spring-run chinook salmon (*Oncorhynchus tshawytscha*)**
 - threatened (September 16, 1999, 64 FR 50394)
 - critical habitat (February 16, 2000, 65 FR 7764)
- Central California Coast steelhead (*Oncorhynchus mykiss*)**
 - threatened (August 18, 1997, 62 FR 43937)
 - critical habitat (February 16, 2000, 65 FR 7764)
- Central Valley steelhead (*Oncorhynchus mykiss*)**
 - threatened (March 19, 1998, 63 FR 13347)
 - critical habitat (February 16, 2000, 65 FR 7764)

The U.S. Fish and Wildlife Service (USFWS) may also have listed species or critical habitat under its jurisdiction in the project area. Please contact Mr. Harry Mossman at USFWS, 2800 Cottage Way, W-2605, Sacramento, California 95825, or (916) 414-6600, regarding the presence of listed species or critical habitat under USFWS jurisdiction that might be affected by your project.



Magnuson-Stevens Act – Essential Fish Habitat

The project location is also designated as Essential Fish Habitat (EFH) for fish species managed with the following Fishery Management Plans (FMP) under the Magnuson-Stevens Fishery Conservation and Management Act:

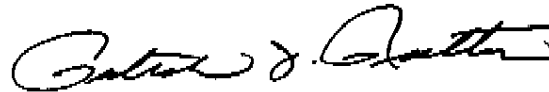
**Pacific Groundfish Fishery Management Plan
Coastal Pelagics Fishery Management Plan
Pacific Coast Salmon Fishery Management Plan**

Amendments to the MSFCMA in 1996 require Federal agencies to consult with NMFS regarding any action or proposed action that may adversely affect EFH for federally managed fish species. For more information on EFH, see our website at www.swr.nmfs.noaa.gov. Please send an EFH assessment to NMFS if the Federal action agency determines that the proposed action may adversely affect EFH for any species in the FMPs listed above.

If available, NMFS requests information in digital format such as maps of the project area, aquatic and terrestrial habitats, wetland classification, and any other relevant data layers be provided with the initiation of the Endangered Species Act consultation and/or EFH Assessment. NMFS would prefer maps in a Geographic Information System (GIS) format compatible with ArcView or Arc Info.

If you have questions concerning these comments, please contact Erik Schmidt of my staff at (707) 575-6083.

Sincerely,



Patrick J. Rutten
Northern California Supervisor
Protected Resources Division

cc: Jim Lecky, NMFS Long Beach